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| EXAMINER |
|---|
| FLANDERS, ANDREW C |

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DATE MAILED: 02/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO 90C (Rev 10/03)

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *07 September 2000*.

2a)☐ This action is **FINAL.**    2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-28* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4 and 6-28* is/are rejected.

7)☒ Claim(s) *5* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *07 September 2000* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

# DETAILED ACTION

## *Drawings*

1.      New corrected drawings in compliance with 37 CFR 1.121(d) are required in this

application because:

> All drawings must be made by a process which will give them
> satisfactory reproduction characteristics. Every line, number, and letter
> must be durable, clean, black (except for color drawings), sufficiently
> dense and dark, and uniformly thick and well-defined. The weight of all
> lines and letters must be heavy enough to permit adequate reproduction.
> This requirement applies to all lines however fine, to shading, and to lines
> representing cut surfaces in sectional views. Lines and strokes of different
> thicknesses may be used in the same drawing where different thicknesses
> have a different meaning.

Applicant is advised to employ the services of a competent patent draftsperson outside

the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings.

The corrected drawings are required in reply to the Office action to avoid abandonment

of the application. The requirement for corrected drawings will not be held in abeyance.

## *Claim Rejections - 35 USC § 102*

2.      The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public
use or on sale in this country, more than one year prior to the date of application for patent in the United
States.

3.      Claims 1 – 3, 8 – 15, 23 and 26 – 28 are rejected under 35 U.S.C. 102(b) as

being anticipated by Whitby (U.K. Patent Application 2 258 102 A).

4.      Regarding Claims 1 and 23 Whitby discloses memory that receives an input from

an incoming radio broadcast (fig. 2 element 32) (i.e. a RAM connected to normally

receive and store audio inputs applied to said device), a user input (fig. 2 element 26)

(i.e. a manually operable input component), user operable means to allow the user to

output a program as desired (page 3 lines 4 – 13), a time shifted mode of operation in

which the direct audio output is disabled (page 10 lines 13 – 14) (i.e. a control operable

in response to a selected input from said component for inhibiting application of

incoming audio inputs to said device), instead the received signal stored in memory is

played back (page 10 lines 14 – 17) (i.e. and for instead applying audio inputs stored in

said RAM as audio inputs to said device), and the received signal that is stored in

memory in a digitized form is withdrawn from the memory after a period of delay,

converted back to an analog signal and passed to the audio output, this gives

reproduction of the transmitted program with a time shift (page 10 lines 14 – 19) (i.e. the

audio reproduced by said device being selectively delayed from incoming audio inputs

by a time dependent on where in said RAM said control begins the applying of audio

inputs to said device).

5.     Regarding Claim 2, in addition to the elements stated above regarding claim 1,

Whitby further discloses the user can jump backwards during the reproduction to adjust

the time shift (page 11 lines 20 – 25) (i.e. wherein the location in said RAM at which the

applying of audio inputs begins, and thus the delay between incoming audio inputs and

reproductions is controllable, in response to selective operation of said component).

6.     Regarding Claim 3, in addition to the elements stated above regarding claim 2,

Whitby further discloses a user can give a pause command which causes the device to

cease reproducing the program in real time and instead stores the signal in memory

until the user gives a continue command and after this it reproduces the program with a

time shift corresponding to the interval between the pause and continue commands

(page 11 lines 8 – 15) (i.e. wherein said delay is a function of at least one of the number

of times said component is operated and the time said component is operated).

7.      Regarding Claim 8, in addition to the elements stated above regarding claim 1,

Whitby discloses that if the memory has sufficient capacity to store 15 minutes and

recording continues past that, the data would be overwritten (page 10 lines 24 – 25 and

page 11 lines 1 – 4) (i.e. wherein said RAM is a wrap-around memory, the oldest audio

input therein being written over when a new audio input is received and said RAM is full)

and if a user wants to record a particularly program the user may set it to not be

recorded over by the next program (page 13 lines 10 – 17) (i.e. and wherein said control

inhibits writing over audio inputs in said RAM in response to a selected input

component, the circuit being in storage mode when this occurs) and the audio signal

from the tuner section can pass directly to the audio output (page 7 lines 17 – 18) (i.e.

and wherein said control causes incoming audio inputs to be applied to said device

when the circuit is in storage mode).

8.      Regarding Claim 9, in addition to the elements stated above regarding claim 8,

Whitby further discloses user operable means to allow the user to output a program as

desired (page 3 lines 4 – 13), instead the received signal stored in memory is played

back (page 10 lines 14 – 17) (i.e. wherein said control is operative when the circuit is in

storage mode to cause at least selected portions of audio inputs stored in said RAM to

be reproduced on said device in response to a selected input from said input

component.

9.      Regarding Claim 10, in addition to the elements stated above regarding claim 9,

Whitby further discloses user operable means to define at lest one program to be stored

or retained in memory (page 3 lines 4 – 8) (i.e. wherein said selected input is said input

component being manually operated for a selected time interval).

10.     Regarding Claim 11, in addition to the elements stated above regarding claim 1,

Whitby further discloses a user can command the microprocessor to tune to a desired

station (page 5 lines 14 – 15) and the audio signal passes directly to the output and to

the memory in digital form (page 7 lines 18 – 23). It is inherent that as the user changes

the station the system will begin recording as normal. This maintains the purpose of the

invention given on page 11 lines 24 – 25 in which a user can playback something just

heard (i.e. wherein said device is a radio, and wherein said circuit is returned from

replay mode to a normal mode with incoming audio inputs applied to said device when

there is a station change on said radio).

11.     Regarding Claim 12, in addition to the elements stated above regarding claim 1,

Whitby discloses user operable means to give instructions to the microprocessor (page

3 lines 4 – 5) and the microprocessor is arrange to be operable to store a digitized audio

signal (page 2 lines 22 – 23) (i.e. wherein said control processes audio inputs applied to

said RAM).

12.     Regarding Claim 13, in addition to the elements stated above regarding claim 1,

Whitby further discloses the sampling frequency could be 22 kHz, sampling on a scale

defined by 8 data bits, but other sampling frequencies and scales of definition are within

the scope of the invention (page 8 lines 8 – 12) and that the rate is adjustable as

desired (page 21 lines 18 – 25) (i.e. wherein said component is operable to indicate a

desired rate at which audio inputs are to be reproduced to said device, and wherein

control is operable in response to a rate indication from said component for controlling

the rate at which said RAM is read out to apply audio inputs to said device).

13.    Regarding Claim 14, in addition to the elements stated above regarding claim 13,

Whitby further discloses the user can alter the quality of digitization as desired (page 21

lines 18 – 25) (i.e. wherein said component is operable in at least two different ways,

said component being operated in a selected way to indicate a desired rate).

14.    Regarding Claim 26, Whitby discloses that if the memory has sufficient capacity

to store 15 minutes and recording continues past that, the data would be overwritten

(page 10 lines 24 – 25 and page 11 lines 1 – 4) (i.e. a RAM connected to normally

receive and store audio inputs applied to said device, said RAM being a wrap-around

memory, the oldest audio input therein being written over when a new audio input is

received and said RAM is full), a user input (fig. 2 element 26) (i.e. a manually operable

input component), user operable means to allow the user to output a program as

desired (page 3 lines 4 – 13), a time shifted mode of operation in which the direct audio

output is disabled (page 10 lines 13 – 14) (i.e. a control operable in response to a

selected input from said component for inhibiting application of incoming audio inputs to

said device), instead the received signal stored in memory  is played back (page 10

lines 14 – 17) (i.e. and for instead applying audio inputs stored in said RAM as audio

inputs to said device) and if a user wants to record a particularly program the user may

set it to not be recorded over by the next program (page 13 lines 10 – 17) (i.e. and

wherein said control inhibits writing over audio inputs in said RAM in response to a

selected input component and wherein said control causes incoming audio inputs to be

applied to said device with the circuit is in storage mode).

15.     Regarding Claim 27, in addition to the elements stated above regarding claim 26,

Whitby further discloses programs can be reproduced through the audio output by

pressing a button (page 20 lines 7 – 12) (i.e. wherein said control is operative when the

circuit is in storage mode to cause at least selected portions of audio inputs stored in

said device in response to a selected input from said input component).

16.     Regarding Claim 28, Whitby discloses memory that receives an input from an

incoming radio broadcast (fig. 2 element 32) (i.e. a RAM connected to normally receive

and store audio inputs applied to said device), a user input (fig. 2 element 26) (i.e. a

manually operable input component), the digitization quality of the audio is a matter of

choice and a higher or lower quality of reproduction may be used if desired (page 21

lines 18 – 25) (i.e. said component being operable to indicate a desired rate at which

audio inputs are to be reproduced to said device and said control being operable in

response to a rate indication from said component for controlling the rate at which RAM

is read out to apply audio inputs to said device), user operable means to allow the user

to output a program as desired (page 3 lines 4 – 13), a time shifted mode of operation in

which the direct audio output is disabled (page 10 lines 13 – 14) (i.e. a control operable

in response to a selected input from said component for inhibiting application of

incoming audio inputs to said device), instead the received signal stored in memory is

played back (page 10 lines 14 – 17) (i.e. and for instead applying audio inputs stored in

said RAM as audio inputs to said device)

## Claim Rejections - 35 USC § 103

7.      The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

8.      Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Whitby

(U.K. Patent Application 2 258 102 A) in view of Maeda (JP409083973A)

9.      Regarding Claim 4, in addition to the elements stated above regarding claim 2,

Whitby discloses a mode in which the stored digitized program is withdrawn, converted

to an analog signal and passed to the audio output (page 10 lines 13 – 20) (i.e. wherein

when said device is receiving inputs from said RAM, the circuit is in replay mode), an

alpha-numeric display device (fig. 2 element 28) (i.e. an output element) and the display

showing the transmission (page 7 lines 1 – 7) (i.e. providing a selected indication that

said circuit is in said replay mode).  Whitby does not disclose providing an indication of

said delay.  Maeda discloses a display control part to display the delay time on a display

part (pages 1 and 2) (i.e. said output element also providing an indication of said delay).

It would have been obvious to one of ordinary skill in the art to use Maeda's delay

display on Whitby for the purpose of warning the user when data was going to be

overwritten. Whitby discloses that if the memory has sufficient capacity to store 15

minutes and recording continues past that, the data would be overwritten (page 10 lines

24 – 25 and page 11 lines 1 – 4). It would be desirable to give the user some indication

of how long the delay is to allow the user to prevent possible data loss.

10.     Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Whitby (U.K. Patent Application 2 258 102 A) in view of Oftedahl (U.S. Patent

6,449,768).

11.     Regarding Claim 6, in addition to the elements stated above regarding claim 1,

Whitby discloses a mode in which the stored digitized program is withdrawn, converted

to an analog signal and passed to the audio output (page 10 lines 13 – 20) (i.e. wherein

when said device is receiving inputs from said RAM, the circuit is in replay mode).

Whitby does not disclose a multicolor LED, the LED displaying one color for replay

mode, and a second different color for normal mode with incoming audio inputs applied

to the device. Oftedahl discloses various LEDs to indicate the mode of operation (fig 2

elements 88, 90, 92 and 94). Oftedahl does not disclose the exact mode of operation of

the LED as claimed by applicant, however it would have been obvious to one of

ordinary skill at the invention to use different or multicolored LEDs to indicate the mode

of operation. One would have been motivated to do so to make the device more user

friendly.

12.     Regarding Claim 7, in addition to the elements stated above regarding claim 6,

Whitby discloses that if the memory has sufficient capacity to store 15 minutes and

recording continues past that, the data would be overwritten (page 10 lines 24 – 25 and

page 11 lines 1 – 4) (i.e. wherein said RAM is a wrap-around memory, the oldest audio

input therein being written over when a new audio input is received and said RAM is full)

and if a user wants to record a particularly program the user may set it to not be

recorded over by the next program (page 13 lines 10 – 17) (i.e. and wherein said control

inhibits writing over audio inputs in said RAM in response to a selected input

component, the circuit being in storage mode when this occurs). Whitby does not

disclose said LED displays a third color when said circuit is in storage mode. Oftedahl

discloses various LEDs to indicate the mode of operation (fig 2 elements 88, 90, 92 and

94). Oftedahl does not disclose the exact mode of operation of the LED as claimed by

applicant, however it would have been obvious to one of ordinary skill at the invention to

use different or multicolored LEDs to indicate the mode of operation. One would have

been motivated to do so to make the device more user friendly.

10.     Claims 15 - 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Whitby (U.K. Patent Application 2 258 102 A) in view of Terui (U.S. Patent 5,903,871).

11.     Regarding Claim 15 , in addition to the elements stated above regarding claim 1,

Whitby discloses user operable means to allow the user to output a program as desired

(page 3 lines 4 – 13) (wherein said control is operative in response to a selected input to

set said circuit into an elimination mode), Whitby does not disclose, said control being

operative when in elimination mode to store in said RAM a selected duration of audio

inputs ahead of inputs received by said RAM, and is responsive, when in elimination

mode, to a selected input from said component for skipping an audio duration in said

RAM which is less than said selected duration, whereby audio during said audio duration is not reproduced at said device. Terui discloses a fast forwarding button FF for fast forwarding the position of the voice recording or reproducing (col. 9 lines 47 – 49) (i.e. said control being operative when in elimination mode to store in said RAM a selected duration of audio inputs ahead of inputs received by said RAM, and is responsive, when in elimination mode, to a selected input from said component for skipping an audio duration in said RAM which is less than said selected duration, whereby audio during said audio duration is not reproduced at said device). One of ordinary skill in the art at the time of the invention would have been motivated to implement Terui's fast forward on Whitby's device in order to further adjust the playback. Whitby already discloses rewinding the playback and adding a fast forward would have been obvious to a skill person in the art.

12.     Regarding Claim 16, in addition to the elements stated above regarding claim 15, Terui discloses a fast forwarding button FF for fast forwarding the position of the voice recording or reproducing (col. 9 lines 47 – 49) (i.e. wherein said audio duration is variable in response to variations in the selected input from said component).

13.     Regarding Claim 17, in addition to the elements stated above regarding claim 15, Whitby further discloses and the audio signal passes to the memory in digital form (page 7 lines 18 – 23) (i.e. wherein said control is operative when in elimination mode to store said selected duration in said RAM before applying audio inputs from said RAM to said device).

14.     Regarding Claim 18, in addition to the elements stated above regarding claim 15,

Whitby further the received signal that is stored in memory in a digitized form is

withdrawn from the memory after a period of delay, converted back to an analog signal

and passed to the audio output, this gives reproduction of the transmitted program with

a time shift (page 10 lines 14 – 19) (i.e. wherein said control is operative, when in

elimination mode to apply audio inputs to said device from said RAM). Whitby does not

disclose slowing down the audio playback. However examiner takes official notice that

slowing down playback is a well known feature in the art (i.e. said RAM being read out

to apply inputs to said device at a slower rate than audio inputs are received to be

stored in said RAM at any time RAM is not storing at least said selected duration of

audio inputs) It would have been obvious to one of ordinary skill in the art at the time of

the invention to include a slow playback feature. It is merely one of many playback

altering features that are commonly included in playback devices.

10.     Claims 19 – 22, 24 and 25 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Whitby (U.K. Patent Application 2 258 102 A) in view of Alpine

(JP11234154)).

11.     Regarding Claim 19, in addition to the elements stated above regarding claim 1,

Whitby further discloses and the audio signal passes to the memory in digital form

(page 7 lines 18 – 23) (i.e. wherein said audio inputs are digital inputs). Whitby does

not disclose each segment of digital input being transmitted during at least two time-

spaced intervals, said time-spaced transmissions being stored in said RAM, and

wherein said control read out all stored transmissions for a given audio input and

processes said multiple transmission to obtain an enhanced audio input for said device.

Alpine discloses a multiple broadcast receiver that has two receiving units which receive

two programs with identical content broadcast simultaneously and a selection control

unit regulates the output program selector based on the receiving condition of the

receiving units in order to choose the program with a favorable receiving condition (i.e.

each segment of digital input being transmitted during at least two time-spaced

intervals, said time-spaced transmissions being stored in said RAM, and wherein said

control read out all stored transmissions for a given audio input and processes said

multiple transmission to obtain an enhanced audio input for said device).  One of

ordinary skill in the art at the time of the invention would have been motivated to use

Alpines broadcast selection device on Whiby's player in order to better regulate the

quality of received broadcasts.

12.    Regarding Claim 20, in addition to the elements stated above regarding claim 19,

Alpine discloses an output program selector based on the receiving condition of the

receiving units in order to choose the program with a favorable receiving condition (i.e.

wherein said control compares said multiple transmissions and selects the best

transmission for each audio input segment as the enhanced audio input applied to said

device for the segment).

13.    Regarding Claims 21 and 24, Whitby discloses the audio signal passes to the

memory in digital form (page 7 lines 18 – 23) (i.e. wherein said audio inputs are digital

inputs) memory that receives an input from an incoming radio broadcast (fig. 2 element

32) (i.e. storing said time-spaced remissions in at least one RAM), a time shifted mode

of operation in which the direct audio output is disabled, instead the received signal stored in memory is played back (page 10 lines 14 – 17) (i.e. reading out all stored transmissions for each broadcast signal). Whitby does not disclose transmitting each segment of an audio broadcast at least two times which broadcast transmissions are at time spaced intervals or processing the multiple transmissions to obtain an enhanced audio for the segment and applying the enhanced audio to be reproduced. Alpine discloses a multiple broadcast receiver that has two receiving units which receive two programs with identical content broadcast simultaneously and a selection control unit regulates the output program selector based on the receiving condition of the receiving units in order to choose the program with a favorable receiving condition (i.e. transmitting each segment of an audio broadcast at least two times which broadcast transmissions are at time spaced intervals or processing the multiple transmissions to obtain an enhanced audio for the segment and applying the enhanced audio to be reproduced). Motivation to combine these elements is given regarding claim 19.

14.    Regarding Claims 22 and 25, in addition to the elements stated above regarding claims 21 and 24, Alpine discloses a multiple broadcast receiver that has two receiving units which receive two programs with identical content broadcast simultaneously and a selection control unit regulates the output program selector based on the receiving condition of the receiving units in order to choose the program with a favorable receiving condition (i.e. wherein said processing step includes comparing said multiple transmissions for each segment, and selecting the best transmission for the segment as the enhanced audio input for the segment).

## *Allowable Subject Matter*

Claim 5 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

## *Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew C Flanders whose telephone number is (703) 305-0381. The examiner can normally be reached on M-F 8:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh Tran can be reached on (703) 305-4040. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Art Unit: 2644

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SINH TRAN
SUPERVISORY PATENT EXAMINER